

computers,] comprising:

at least two [said] personal computers;

[means for] at least one of said at least two personal computers, when directed by [its] a personal user, [to function] functioning temporarily as a master personal computer to initiate and control [the] execution of a computer processing operation shared with at least one other of said at least two personal computers in said network, said shared computer processing operation including at least one of parallel processing and multitasking processing;

[means for] at least one other of said at least two personal computers, when idled by [its] another personal user, [to be made available to function] functioning temporarily as at least one slave personal computer to participate in the execution of [a] said shared computer processing operation controlled by said master personal computer; [and]

[means for] any of said at least two personal computers [to alternate] alternating as directed by said personal users between functioning as a master and functioning as a slave in a number of said shared computer processing operations;

a firewall, at least for said temporary slave personal computer, allowing access, at least temporarily, to a microprocessor of said temporary slave personal computer by said network during said shared computer processing operation; and

said firewall denying access by said network, during said shared computer processing operation, to a master controller mechanism of said temporary slave personal computer functioning to control said at least one microprocessor of said temporary slave personal computer when said temporary slave personal computer is not idled by said another personal user.

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28. (Amended) The system of claim ⁴27, wherein said system is scalar in that a number of said personal computers participating in multiple, separate, non-related shared computer processing operations [said system imposes no limit to the number of said personal computers] is limited only by a number of said personal computers that are connected to the network.

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29. (Amended) The system of claim ~~28~~, wherein [said system includes] at least one of [1024] said personal computers is substantially contained in a respective single microchip.

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32. (Amended) The system of claim ⁴27, wherein said system is scalar in that a number of said personal computers participating as masters in multiple, separate, non-related shared computer processing operations [said system imposes no limit to the number of said personal computers participating in a single shared computer processing operation] is limited only by a number of said personal computers that are connected to the network.

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33. (Amended) The system of claim ⁴27, wherein at least one of said [system] [includes at least 256 said] personal computers is substantially contained in a single respective microchip having more than one microprocessor.

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34. (Amended) The system of claim ⁴27, wherein said network is connected to

[the] an Internet, which is utilized to provide shared computer processing services [and its equivalents and successors, so that said personal computers include at least a million personal computers].

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~~35~~. The system of claim ⁴~~27~~, wherein said [shared computer processing is parallel processing] other personal computer of said at least two personal computers defaults automatically to functioning as a slave when idled by said another personal user.

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~~36~~. (Amended) The system of claim ⁴~~27~~, wherein said network is connected to [the] a World Wide Web, which is utilized to provide said shared computer processing services [and its successors].

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~~37~~. (Amended) The system [on] of claim ⁴~~27~~, [wherein a means for] further comprising a provider of network services, said network services including [browsing and] broadcast functions[, as well as] and shared computer processing services [such as parallel processing, are provided to said personal computers within said network].

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~~38~~. (Amended) The system of claim [27] ¹³~~36~~, wherein said network includes at least one network server being configured to provide network services to said at least two personal computers that participate[s] in [said] shared computer processing.

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~~39~~. (Amended) The system of claim ⁴~~27~~, wherein said personal computers include

a transponder [means] so that, when functioning as a master, a personal computer of said at least two personal computers can determine [the] a closest available one of a plurality of slave personal computers.

¹⁶
~~40.~~ (Amended) The system of claim ¹⁷~~27~~ ³⁹, wherein a selection of said closest available slave personal computer is limited to one of the slave personal computers being compatible with [said] a master personal computer in order to simplify [execute] execution of said shared computer processing operation.

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~~41.~~ (Amended) The system of claim ~~20~~, wherein said at least two personal computers [having] include at least one microprocessor and are configured to [communicating] communicate with said network through a connection [means] having a minimum speed of data transmission that is [at least] greater than a peak data processing speed of said [microprocessor] personal computers.

⁴²
~~42.~~ (Amended) A system architecture for computers, [including personal computers,] to function within a network of computers, said architecture comprising:
at least two personal computers, each [with] having at least two microprocessors and [having] a connection [means with] to a network of personal computers;
[said architecture for said computers including] a firewall [means] for at least some of said personal computers to limit access by said network to only a portion of [the] at least one of hardware, software[,], and firmware[, and other components] of each of said at least

some of said personal computers;

each said firewall [means will] arranged to [not permit] deny access by said network
to at least a [one] first of said at least two [microprocessor] microprocessors of said at least
some of said personal computers [having a means to function], said first of said
microprocessors arranged to function as a master microprocessor to initiate and control [the]
execution of a computer processing operation shared with [said] at least one other
microprocessor of said personal computers [having a means to function] arranged to function
as a slave microprocessor and connected to said network; and

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each said firewall [means permitting] arranged to permit at least temporary access by
said network to [said slave microprocessor] at least a second of said at least two
microprocessors of said at least some of said personal computers, said second of said
microprocessors arranged to function as a slave microprocessor during a shared computer
processing operation, said shared computer processing operation including at least one of
parallel and multitasking processing.

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43. (Amended) The system architecture of claim 42, wherein said network is
connected to a World Wide Web, which is utilized to provide shared computer processing
services [is a personal computer].

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44. (Amended) The system architecture of claim [43] 42, wherein said [personal
computer is a microchip] firewall denies access by said network during said shared
processing operation to at least part of a non-volatile, writable memory of at least one of said

personal computers.

45. (Amended) The system architecture of claim 42, wherein said [computer] system [have] has a control [means] mechanism by which to permit and to deny access to said personal computer by said network for shared computer processing.

46. (Amended) The system architecture of claim 43, wherein said system is scalar in that a number of said personal computers participating in multiple, separate, non-related shared computer processing operations [said system imposes no limit to the number of said personal computers] is limited only by a number of said personal computers that are connected to the network.

47. (Amended) The system architecture of claim 46, wherein [said system includes] at least one of [256] said personal computers is substantially contained in a respective single microchip.

48. (Amended) The system architecture of claim 43, wherein said network is connected to [the] an Internet, which is utilized to provide said shared computer processing services [and its equivalents and successors, so that said personal computers include at least a million personal computers].

49. (Amended) The system architecture claim 43, wherein said system is scalar in

that a number of said personal computers participating in single shared computer processing operation [said system imposes no limit to the number of said personal computers participating in a single shared computer processing operation] is limited only by a number of said personal computers that are connected to the network.

50. (Amended) The system architecture of claim 49, wherein [some] at least one of said [system at least includes at least 256 said] personal computers is substantially contained in a single respective microchip having more than one microprocessor.

51. (Amended) The system architecture of claim [43] 47, wherein said personal computers [having] have at least one microprocessor and are configured to [communicating] communicate with said network through a connection [means] having a minimum speed of data transmission that is [at least] greater than a peak data processing speed of said at least one [microprocessor] personal computer.

Kindly add the following new claims:

19 --52 (New) The system of claim 27, wherein said at least two personal computers are configured to communicate with said network through a connection including a direct connection to said at least two personal computers by an optical fiber connection.

53. (New) The system architecture of claim 42, wherein said at least two personal

computers are configured to communicate with said network through a connection including a direct connection to said at least two personal computers by an optical fiber connection.

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~~54~~. (New) The system of claim ⁴~~27~~, wherein said firewall denies access by said network during said shared processing operation to at least part of a non-volatile, writable memory of at least one of said personal computers.

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²¹ ~~55~~. (New) The system architecture of claim ~~54~~, wherein said non-volatile, writable memory includes a flash bios.

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^{A3} ~~56~~. (New) The system architecture of claim 44, wherein said non-volatile, writable memory includes a flash bios.

²⁰
57. (New) The system of claim ~~54~~, wherein said non-volatile, writable memory includes a hard disk.

58. (New) The system architecture of claim 44, wherein said non-volatile, writable memory includes a hard disk.

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⁶ ~~59~~. (New) The system of claim ~~29~~, wherein said at least one of said personal computers substantially contained on said respective single microchip has a direct optical fiber connection with said network.

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~~60~~. (New) The system of claim ⁹~~33~~, wherein said at least one personal computer substantially contained on said respective single microchip personal computers having more than one microprocessor has a direct optical fiber connection with said network.

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~~61~~. (New) The system architecture of claim 47, wherein said at least one of said personal computers substantially contained on said respective single microchip has a direct optical fiber connection with said network.

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~~62~~. (New) The system architecture of claim 50, wherein said at least one personal computer substantially contained on said respective single microchip personal computers having more than one microprocessor has a direct optical fiber connection with said network.

²²
~~63~~. (New) The system of claim ⁴~~27~~, wherein when said temporary slave personal computer is used by said another personal user, said use thereby ending the temporary slave functioning of said personal computer, said master controller mechanism of the former said temporary slave personal computer is used by said another personal user to control at least one microprocessor of a different computer in said network during a different shared computer processing operation.

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~~64~~. (New) The system of claim ⁴~~27~~, wherein said master controller mechanism is located remotely from said temporary slave personal computer.

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65. (New) The system of claim 63, wherein said master controller mechanism is wirelessly connected to said temporary slave personal computer.

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66. (New) The system architecture of claim 42, wherein at least some of said personal computers include a digital signal processor.

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67. (New) A system for a network of computers, comprising:
at least two personal computers;
means for at least one of said at least two personal computers, when directed by a personal user, to function temporarily as a master personal computer to initiate and control execution of a computer processing operation shared with at least one other of said at least two personal computers in said network, said shared computer processing operation including at least one of parallel processing and multitasking processing;
means for at least one other of said at least two personal computers, when idled by another personal user, to function temporarily as at least one slave personal computer to participate in the execution of said shared computer processing operation controlled by said master personal computer;
means for any of said at least two personal computers to alternate as directed by said personal users between functioning as a master and functioning as a slave in a number of said shared computer processing operations;
firewall means, at least for said temporary slave personal computer, for allowing

access, at least temporarily, to a microprocessor of said temporary slave personal computer by said network during said shared computer processing operation; and

said firewall means denying access by said network, during said shared computer processing operation, to a master controller mechanism of said temporary slave personal computer functioning to control said at least one microprocessor of said temporary slave personal computer when said temporary slave personal computer is not idled by said another personal user.

68. (New) The system of claim ⁶⁰~~67~~, wherein said system is scalar in that a number of said personal computers participating in multiple, separate, non-related shared computer processing operations is limited only by a number of said personal computers that are connected to the network.

69. (New) The system of claim 68, wherein at least one of said personal computers is substantially contained in a respective single microchip.

⁸⁰~~70~~. (New) The system of claim ⁶⁰~~67~~, wherein said system is scalar in that a number of said personal computers participating as masters in multiple, separate, non-related shared computer processing operations is limited only by a number of said personal computers that are connected to the network.

71. (New) The system of claim ⁶⁰~~67~~, wherein at least one of said personal

computers is substantially contained in a single respective microchip having more than one microprocessor.

⁸¹
~~72~~. (New) The system of claim ⁶⁰~~67~~, wherein said network is connected to an Internet, which is utilized to provide shared computer processing services.

73. (New) The system of claim ⁶⁰~~67~~, wherein said other personal computer of said at least two personal computers defaults automatically to functioning as a slave when idled by said another personal user.

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74. (New) The system of claim ⁶⁰~~67~~, wherein said network is connected to a World Wide Web, which is utilized to provide said shared computer processing services.

75. (New) The system of claim ⁶⁰~~67~~, further comprising means for providing network services, said network services including broadcast functions and shared computer processing services.

76. (New) The system of claim 74, wherein said network includes at least one network server being configured to provide network services to said at least two personal computers that participate in shared computer processing.

77. (New) The system of claim ⁶⁰~~67~~, wherein said personal computers include a

transponder so that, when functioning as a master, a personal computer of said at least two personal computers can determine a closest available one of a plurality of slave personal computers.

78. (New) The system of claim 77, wherein a selection of said closest available slave personal computer is limited to one of the slave personal computers being compatible with a master personal computer in order to simplify execution of said shared computer processing operation.

79. (New) The system of claim ⁶⁸~~67~~, wherein said at least two personal computers include at least one microprocessor and are configured to communicate with said network through a connection means having a minimum speed of data transmission that is at least greater than a peak data processing speed of said microprocessor personal computers.

²⁷
~~80.~~ (New) A system architecture for computers, to function within a network of computers, said architecture comprising:

at least two personal computers, each having at least two microprocessors and a connection to a network of personal computers;

firewall means for at least some of said personal computers to limit access by said network to only a portion of at least one of hardware, software and firmware of each of said at least some of said personal computers;

each said firewall means arranged to deny access by said network to at least a first of

said at least two microprocessors of said at least some of said personal computers, said first of said microprocessors arranged to function as a master microprocessor to initiate and control execution of a computer processing operation shared with at least one other microprocessor of said personal computers arranged to function as a slave microprocessor and connected to said network; and

each said firewall means arranged to permit at least temporary access by said network to at least a second of said at least two microprocessors of said at least some of said personal computers, said second of said microprocessors arranged to function as a slave microprocessor during a shared computer processing operation, said shared computer processing operation including at least one of parallel and multitasking processing.

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81. (New) The system architecture of claim ²⁷80, wherein said network is connected to a World Wide Web, which is utilized to provide shared computer processing services.

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82. (New) The system architecture of claim ²⁷80, wherein said firewall means denies access by said network during said shared processing operation to at least part of a non-volatile, writable memory of at least one of said personal computers.

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83. (New) The system architecture of claim ²⁷80, wherein said system further comprises control means for permitting and denying access to said personal computer by said network for shared computer processing.

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~~84~~. (New) The system architecture of claim ²⁸~~81~~, wherein said system is scalar in that a number of said personal computers participating in multiple, separate, non-related shared computer processing operations is limited only by a number of said personal computers that are connected to the network.

³⁰
~~85~~. (New) The system architecture of claim ²⁹~~84~~, wherein at least one of said personal computers is substantially contained in a respective single microchip.

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~~86~~. (New) The system architecture of claim ²⁸~~81~~, wherein said network is connected to an Internet, which is utilized to provide said shared computer processing services.

³⁴
~~87~~. (New) The system architecture of claim ²⁸~~81~~, wherein said system is scalar in that a number of said personal computers participating in single shared computer processing operation is limited only by a number of said personal computers that are connected to the network.

³⁵
~~88~~. (New) The system architecture of claim ³⁴~~87~~, wherein at least one of said personal computers is substantially contained in a single respective microchip having more than one microprocessor.

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~~88~~. (New) The system architecture of claim ³⁰~~85~~, wherein said personal computers have at least one microprocessor and are configured to communicate with said network through a connection having a minimum speed of data transmission that is greater than a peak data processing speed of said at least one personal computer.

⁶¹
~~90~~. (New) The system of claim ⁶⁰~~67~~, wherein said at least two personal computers are configured to communicate with said network through a connection including a direct connection to said at least two personal computers by an optical fiber connection.

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~~91~~. (New) The system architecture of claim ²¹~~80~~, wherein said at least two personal computers are configured to communicate with said network through a connection including a direct connection to said at least two personal computers by an optical fiber connection.

⁶³
~~92~~. (New) The system of claim ⁶⁰~~67~~, wherein said firewall means denies access by said network during said shared processing operation to at least part of a non-volatile, writable memory of at least one of said personal computers.

³⁸
~~93~~. (New) The system architecture of claim ³⁷~~82~~, wherein said non-volatile, writable memory includes a flash bios.

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~~94~~. (New) The system of claim ⁴³~~92~~, wherein said non-volatile, writable memory includes a flash bios.

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~~95~~. (New) The system architecture of claim ³⁷~~82~~, wherein said non-volatile, writable memory includes a hard disk.

⁶⁵
~~96~~. (New) The system architecture of claim ⁶³~~92~~, wherein said non-volatile, writable memory includes a hard disk.

⁷⁰
~~97~~. (New) The system of claim 69, wherein said at least one of said personal computers substantially contained on said respective single microchip has a direct optical fiber connection with said network.

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~~98~~. (New) The system of claim ⁷¹~~71~~, wherein said at least one personal computer substantially contained on said respective single microchip personal computers having more than one microprocessor has a direct optical fiber connection with said network.

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~~99~~. (New) The system of claim ³⁰~~85~~, wherein said at least one of said personal computers substantially contained on said respective single microchip has a direct optical fiber connection with said network.

³⁶
~~100~~. (New) The system of claim ³⁵~~88~~, wherein said at least one personal computer substantially contained on said respective single microchip personal computers having more than one microprocessor has a direct optical fiber connection with said network.

82
101. (New) The system of claim 67, wherein when said temporary slave personal computer is used by said another personal user, said use thereby ending the temporary slave functioning of said personal computer, said master controller mechanism of the former temporary slave personal computer is used by said another personal user to control at least one microprocessor of a different computer in said network during a different shared computer processing operation.

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102. (New) The system of claim 67, wherein said master controller mechanism is located remotely from said temporary slave personal computer.

67 64
103. (New) The system of claim 102, wherein said master controller mechanism is wirelessly connected to said temporary slave personal computer.

62 61
104. (New) The system of claim 90, wherein at least some of said personal computers include a digital signal processor.

25 4
105. (New) The system of claim 27, wherein said master controller mechanism is not a general purpose microprocessor capable of processing in said shared computer processing operation.

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106. (New) The system of claim 67, wherein said master controller mechanism is

not a general purpose microprocessor capable of processing in said shared computer processing operation.

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107. (New) A system architecture for computers, including personal computers, to function within a network of computers, comprising:

at least one of said computers including at least two microprocessors having a connection with said network of computers;

a firewall for said personal computers to limit access by said network to only a portion of hardware, software, firmware, and other components of said personal computers, wherein:

said firewall denies access by said network to at least a one of said microprocessors, which includes means for functioning as a master microprocessor to initiate and control execution of a computer processing operation shared with at least one other microprocessor, including means for functioning as a slave microprocessor, and

said firewall permitting access by said network to said slave microprocessor.

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~~108.~~ (New) A system for a network of computers, comprising:

at least two personal computers;

means for providing network services including shared computer processing including parallel processing, to be provided to said at least two personal computers within said network;

means for at least one of said at least two personal computers, when idled by a personal user, to be made available temporarily to provide said shared computer processing to said network;

a monitor, constructed and arranged to monitor on a net basis, a provision of said network services to each of said at least two personal computers or to said personal user;

means for maintaining a standard cost basis for a provision of said network services to each of said at least two personal computers or to said personal user;

means for at least one of said at least two personal computers, when directed by a corresponding personal user, to function temporarily as a master personal computer to initiate and control execution of a computer processing operation shared with at least one other of said at least two personal computers in said network;

means for said at least one other of said at least two personal computers, when idled by a corresponding personal user, to be made available to function temporarily as at least one slave personal computer to participate in an execution of a shared computer processing operation controlled by said master personal computer; and

means for said at least two personal computers to alternate as directed between functioning as a master and functioning as a slave in said shared computer processing operations;

at least one of said computers including at least two microprocessors and having a connection with said network of computers;

a firewall for said at least two personal computers to limit access by said network to only a portion of hardware, software, firmware, and other components of said at least two personal computers, wherein:

said firewall denying access by said network to at least one of said microprocessors, which include means for functioning as a master microprocessor to initiate and control execution of a computer processing operation shared with at least one other microprocessor, including means for functioning as a slave microprocessor, and

said firewall permitting access by said network to said slave microprocessor.

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109. (New) A system for a network of computers, comprising:

at least two personal computers;

means for at least one of said at least two personal computers, when directed by a corresponding personal user, to function temporarily as a master personal computer to initiate and control execution of a computer processing operation shared with at least one other of said at least two personal computers in said network;